

**Amendments to the Specification:**

Page 10, for the first full paragraph, please substitute the following paragraph:

--To implement an optical synthesizer for optical frequency metrology, it is necessary to generate optical frequency combs that span more than one optical octave and have a sufficiently high pulse repetition rate. These optical frequency combs are necessary because only a full optical octave allows simple determination of the aforementioned offset frequency, and thereby a complete characterization of the optical frequency comb. If the optical frequency comb spans more than one optical octave, the long-wave mode of the frequency comb can be frequency-doubled and brought into interference with a corresponding short-wave mode. The offset frequency value being searched for can be determined directly on the basis of the ~~heat~~ beat frequency.--